



# ***2005 Annual Drinking Water Quality Report*** **Cave Rock/Skyland Water System**

## **Dear Water Customers:**

We are pleased to present to you this “2005 Annual Drinking Water Quality Report”. This report is designed to inform you about the quality of the drinking water we deliver to you everyday. We are committed to ensuring the quality of your water and that of maintaining a safe, dependable supply.

## **Introduction:**

When Congress passed the 1996 Safe Drinking Water Act amendments, the Environmental Protection Agency (EPA) was given the mandate to require public water systems to provide each customer with an Annual Water Quality Report, including test results every 12 months. The report is meant to increase public awareness of drinking water issues and to serve as a means for customers to make informed decisions regarding their drinking water. Information regarding where the drinking water comes from, what is involved in treating and delivering safe drinking water, and any detected levels of contaminants must be included in the report.

## **Water Source & Treatment:**

The water source for this system is surface water drawn from Lake Tahoe. The Surface Water Treatment Rule requires that filtration must be included in the treatment process unless a system meets a certain set of criteria and qualifies for filtration avoidance. The Cave Rock/Skyland Water System utilizes micro-filtration as its treatment process. The lake intake pumps are located at lower Lakeridge with the water being pumped to the micro-filtration plant on Hwy 50. Here the water is treated then pumped through the distribution system and to five water tanks within the Cave Rock / Skyland water service area.

## **Protection:**

Douglas County Utilities participates in the Lake Tahoe Sanitary Survey and Management Plan in protecting our water supplies. We also follow the recommended best management practices in the watersheds directly tributary to the Lake intakes to mitigate any negative impact activities in the watershed may have on water quality.

## **Monitoring:**

Douglas County Utilities routinely monitors for constituents in your drinking water according to Federal and State laws. Results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2005 are designated under “Test Results”. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

## **Educational Statement:**

**Arsenic:** While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency’s Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline 1-800-426-4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring

minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems, Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

## Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

### Important Drinking Water Definition:

*Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Maximum Contaminant Level* - The “Maximum Allowed” (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

*Maximum Contaminant Level Goal* - The “Goal” (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
Turbidity	<b>N</b>	<b>0.04</b>	NTU	5	TT	Soil runoff
<b>Radioactive Contaminants</b>						
Beta/photon emitters	<b>N</b>	<b>3</b>	pCi/l	0	50*	Decay of natural and man-made deposits
*EPA considers 50 pCi/l to be the level of concern for beta particles.						
Alpha emitters	<b>N</b>	<b>1.1</b>	pCi/l	0	15	Erosion of natural deposits
Uranium	<b>N</b>	<b>0.6</b>	pCi/l	0	30	Erosion of natural deposits
<b>Inorganic Contaminants</b>						
Arsenic	<b>N</b>	<b>1</b>	ppb	n/a	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Asbestos	<b>N</b>	<b>.2</b>	MFL	7	7	Decay of asbestos cement water mains; erosion of natural deposits
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination

Barium	<b>N</b>	<b>0.012</b>	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	<b>N</b>	<b>2</b>	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper	<b>N</b>	<b>0.089</b>	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride	<b>N</b>	<b>.14</b>	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead	<b>N</b>	<b>1</b>	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

### **Volatile Organic Contaminants**

Volatile Organic Chemicals (VOCs) are organic chemicals that evaporate easily. These include common industrial solvents such as gasoline.

Haloacetic Acids (HAA5)	<b>N</b>	<b>3</b>	ppb	0	60	Discharge from petroleum refineries
TTHM[Total trihalomethanes]	<b>N</b>	<b>8.3</b>	ppb	0	100	By-product of drinking water chlorination

### **Units Description:**

ppm: parts per million, or milligrams per liter (mg/l)

ppb: parts per billion, or micrograms per liter (µg/l)

pCi/L: picocuries per liter (a measure of radioactivity)

MFL: million fibers per liter, used to measure asbestos concentration

**NTU:** Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water.

**Source Water Assessment Program (SWAP) Summary:** The federal Safe Drinking Water Act (SWDA) was amended in 1996 to require states to develop and implement source water assessment programs (SWAP) to analyze existing and potential threats to the quality of public drinking water throughout the state. The 1996 Amendments also required a summary of the findings of the assessment to be included in the water system's annual Consumer Confidence Report (CCR). The 1996 Amendments specifically required states to delineate areas that are sources of public drinking water, identify potential contamination sources within the delineated area, assess the water system's susceptibility to contamination, and inform the public of the results.

**SWAP results:** The Cave Rock / Skyland public water system utilizes a surface water intake at Lake Tahoe and a water treatment plant. The Surface water intake is considered to be moderately vulnerable to Microbiological Contamination from Lake Tahoe. The Water System is presently in compliance with all State and Federal Maximum Contaminant Levels for drinking water.

If you have questions about this report or concerning your water utility, please contact Carl Ruschmeyer, County Engineer at (775) 782-6227. We want our valued customers to be informed about their water utility. We at Douglas County Utility work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.